Summary of Major Changes to the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review September 2001 (Draft) - July 2002 (Final)

Introduction:

This document is an overview of the major changes (additions and deletions) made to the Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Data Review. The new document is dated July 2002.

This summary of changes highlights the major changes with respect to several specific areas of interest in the NFG: Inductively Coupled Plasma-Atomic Emissions Spectroscopy (ICP-AES) Data Review; Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) Data Review; Mercury (Hg) Data Review; and Cynanide (CN) Data Review.

Global Changes:

All references to Traffic Report (TR) have been changed to Traffic Report/Chain of Custody (TR/COC) documentation.

ICP-AES Data Review

Section	Change(s)
I.C	Changed the nitric acid preservation criteria for aqueous metal samples from pH # 2 to pH < 2.
I.D	Removed "If there is no indication in the SDG Narrative or the sample records that there was a problem with the samples, it can be assumed that sample integrity is acceptable."
II.E	Added Contract Required Quantitation Limit (CRQL) Check Standard (CRI) guidelines for qualifying CRI standards outside the acceptance criteria.
III.E	Revised specific method actions for instances where the absolute value of the Initial Calibration Blank (ICB) or a Continuing Calibration Blank (CCB) result exceeds the CRQL. Also changed the reporting for samples that do not require redigestion to CRQL-U.

Section	Change(s)
IV.B	Added a note stating that the Laboratory should analyze and report Interference Check Sample (ICS) results for all elements being reported from the analytical run and for all interferents (target and non-target) for these reported elements.
Table 8	Added Spike Sample Actions when no post-digestion spike is required.
VIII.C	Added a note regarding serial dilution reporting units. Soil samples are reported in µg/L, but the Method Detection Limit (MDL) is in mg/kg. The units will need to be adjusted.
X.D	Added the requirement to verify that the appropriate methods and amounts are used in preparing the samples for analysis.
Calculations for ICP-AES	Revised and added calculations for concentration and adjusted concentration.

ICP-MS Data Review:

Section	Change(s)
I.C	Changed the nitric acid preservation criteria for aqueous metal samples from pH # 2 to pH < 2.
I.D	Removed "If there is no indication in the SDG Narrative or the sample records that there was a problem with the samples, it can be assumed that sample integrity is acceptable."
II	Moved ICP-MS Tune Analysis to Section II.
II.C.1	Added a note stating certain instruments may need to use a criteria of 0.65-0.80 amu at 10% peak height.
III.E	Added CRI guidelines for qualifying CRI standards outside the acceptance criteria.

Section	Change(s)
V.E	Revised specific method actions for instances where the absolute value of the ICB or a CCB result exceeds the CRQL. Also changed the reporting for samples that do not require redigestion to CRQL-U.
Table 18	Added Spike Sample Actions when no post-digestion spike is required.
XII.D	Added the requirement to verify that the appropriate methods and amounts are used in preparing the samples for analysis.
Calculations for ICP-MS	Revised and added calculations for concentration and adjusted concentration.

Mercury (Hg) Data Review:

Section	Change(s)
I.C	Changed the nitric acid preservation criteria for aqueous mercury samples from pH # 2 to pH < 2.
I.E.6	Added information regarding when shipping or storage temperatures grossly exceed the requirements.
II.C.1	Added that the calibration curve shall be prepared by the same method used to prepare the samples for analysis.
II.E	Added CRI guidelines for qualifying CRI standards outside the acceptance criteria.
III.C.3	Added that the CCB shall be prepared by the same method used to prepare the samples for analysis.
III.E	Revised specific method actions for instances where the absolute value of the ICB or a CCB result exceeds the CRQL. Also changed the reporting for samples that do not require redigestion to CRQL-U.

Section	Change(s)
VIII.D	Added the requirement to verify that the appropriate methods and amounts are used in preparing the samples for analysis.
Calculations for Mercury (Hg)	Revised and added calculations for concentration and adjusted concentration.

Cyanide (CN) Data Review:

Section	Change(s)
I.C	Changed the sodium hydroxide preservation criteria for aqueous CN samples from pH $ 12 to pH > 12.
II.C.1.c	Added that the mid-level standard shall be prepared at least once for each distillation method used to prepare samples for analysis.
II.E	Clarified language for non-distilled and distilled Initial Calibration Verifications (ICVs).
II.E.4	Added CRI guidelines for qualifying CRI standards outside the acceptance criteria.
III.E	Revised specific method actions for instances where the absolute value of the ICB or a CCB result exceeds the CRQL. Also changed the reporting for samples that do not require redigestion to CRQL-U.
VIII.D	Added the requirement to verify that the appropriate methods and amounts are used in preparing the samples for analysis.
Calculations for Cyanide (CN)	Added adjusted MDL/adjusted CRQL calculations.

Appendix B

Added Appendix B, Inorganic Data Review Summary Sheet.